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T H E S I S .

Presented for the Degree of M.D.

by

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Remarks on twenty-eight cases of adult female General Paralysis admitted to the Royal Edinburgh Asylum during the five years 1889 to 1893.

It is proposed in this paper to consider the cases of General Paralysis in adult women admitted to the Royal Edinburgh Asylum during the five years 1889 to 1893, and to make some general remarks on the subject.

The interest of General Paralysis, the most well defined of all the nervous diseases classed together under the name Insanity, is so great from its etiology, from its clinical aspect and from its pathology that no excuse is needed for examining as carefully as possible the female cases coming under observation in an Asylum during the space of five years.

Some of the subjects touched on such as the relationship of Syphilis to General Paralysis, are very wide indeed and would if treated properly, need a paper devoted entirely to them.

The following table, extracted from the Reports of the General Board of Commissioners in Lunacy for Scotland, shows the Deaths from General Paralysis in the Royal Asylums, the Private Asylums, and the Parochial Asylums of Scotland during the 20 years, 1873 - 1892.

Year.	M.	F.	T.
1873	51	13	64
1874	43	13	56
1875	62	9	71
1876	56	11	67
1877	54	14	68
1878	56	10	66
1879	41	4	45
1880	46	12	58
1881	49	11	60
1882	57	10	67
1883	58	15	73
1884	54	10	64
1885	61	14	75
1886	58	10	68
1887	49	17	66
1888	70	20	90
1889	82	22	104
1890	80	18	98
1891	92	28	120
1892	97	12	109

The next table shows both the total annual admissions to the Royal Edinburgh Asylum, during the last twenty years, and also the total annual admissions of General Paralytics during the same period. It will be seen that the total annual admissions have increased considerably during the last twenty years, but the admissions of General Paralytics, both male and female have increased in an even greater ratio.

General Paralytics admitted to the Royal Edinburgh Asylum during the 20 years 1874 to 1893.



<u>Admissions.</u>				<u>General Paralytics.</u>		
M.	F.	T.	Year.	M.	F.	T
151	157	308	1874	23	3	26
148	162	310	1875	18	3	21
180	180	360	1876	22	6	28
174	168	342	1877	17	3	20
205	160	365	1878	16	7	23
173	172	345	1879	15	0	15
160	187	347	1880	20	3	23
162	177	339	1881	16	1	17
143	186	329	1882	11	2	13
164	189	353	1883	17	2	19
161	181	342	1884	14	1	15
139	165	304	1885	7	4	11
170	164	334	1886	13	3	16
185	180	365	1887	13	4	17
172	176	348	1888	19	2	21
172	151	323	1889	25	5	30
155	177	332	1890	22	5	27
191	179	370	1891	31	8	39
214	219	433	1892	30	7	37
215	211	426	1893	30	11	41

Number of Cases.

During the five years 1889 to 1893 there have been twenty-eight Adult and eight Developmental Female General Paralytics admitted to the Royal Edinburgh Asylum, as the following table shows at a glance.

Admission of Female General Paralytics.

	Adults	Developmental	Totals
1889	5	0	5
1890	3	2	5
1891	7	1	8
1892	5	2	7
1893	8	3	11
Totals	28	8	36



### Has General Paralysis in Women increased?

It is important to consider whether General Paralysis in women is becoming more common. Of the thirty-six cases admitted during the five years eight belonged to a newly discovered variety of the disease and from this cause, the total numbers of female General Paralytics have gone up. Omitting the developmental cases there is but a very small increase. If there has been any increase of female General Paralytics admitted to Asylums during recent years it seems to be accounted for, first because milder cases of insanity are now certified and secondly because diagnosis is more perfect. Undoubtedly many of the milder female cases would formerly have been treated in Poorhouses or in their homes. Indeed at the present time cases far advanced in the disease reach the Asylum from the Poorhouse and their own houses where they have lived for months or years in a state of bodily and mental enfeeblement.

With our improved clinical methods and with a larger knowledge of pathology, very few female General Paralytics nowadays can escape tabulation. It seems, therefore, very doubtful if General Paralysis in women has increased in recent years.

### Adult and Developmental Cases.

During recent years a new variety of General Paralysis which has been named by Dr. Clouston "Developmental General

Paralysis" has been discovered and noted by several observers.

During the five years 1889 to 1893 eight such cases (all females) have been under observation in the Royal Asylum Edinburgh and for a description of them the reader must be referred to a paper by my colleague, Dr. Middlemass, in the "Journal of Mental Science" for January 1894. Only those cases in which the disease came on after full mental and bodily development are considered in this paper.

Lack of any proper history in many of the Cases.

Many of the cases had led immoral lives, and from that cause alone had no respectable friends, many had come from the Poorhouse whither they had drifted when they found themselves homeless and without friends, and several were picked up by the police aimlessly wandering on the streets so that it is not wonderful the histories obtained regarding many were imperfect and in some cases absent. And even when the friends were found, they often in pity hid from the medical man the seamy side of a poor insane woman's previous life.

In addition to this the memory is early affected in General Paralysis, and thus many of the patients were unable to tell anything about where they had come from, or what they had lately been doing.

Age on Admission. The average age on admission was about 40, and this is much what would be expected, for

General Paralysis is mostly a disease of the prime of life. The youngest case, No. XVII was only 25 on admission and her case as being very unusual and interesting has been reported more fully than some of the others. It might be asked as regards this last named case - why is she regarded as an adult General Paralytic, when there is at present in the Asylum a girl aged 23 who is unhesitatingly diagnosed as a Developmental General Paralytic?

The answer is that in the one case the woman is fully matured sexually, has married and has borne children. whereas the other has not in spite of her age developed either mentally or bodily beyond the girlhood stage of life.

The oldest admitted case was 51.

#### Heredity as to Insanity.

General Paralysis is generally pointed to as a disease in which there is usually no heredity to insanity. In these cases where there was some history obtained, it was usually found that there was no direct or close collateral heredity to insanity, but in two of the patients there was the history that the mother had been insane.

#### Kind of women affected by General Paralysis.

It is rare indeed to come across a female General



Paralytic who before her illness could be described as ugly. Most of them have been well developed and good-looking and in this agree with the male General Paralytics. Many of them are described as having been much admired by men and as being charming wives and companions. Most of them too knew how to dress and make a good appearance, and they were intelligent, so that of almost none would it be fair to say that they were fools.

But as to their morality no class of female patients ranks lower. Seven of the twenty-eight had led immoral lives, several of them having had syphilis, and twelve had been habitually alcoholic. In the present state of society a woman of ill repute sinks much lower than a man, and is unhesitatingly cast off by all her friends. In eight of the cases there was no history worth speaking of, because there were no friends, six came from the shelter of the Poorhouse to the shelter of the Asylum in a similar unbefriended state, and three were picked up by the police aimlessly wandering without friends upon the streets. Apparently one of the most respectable of all the cases admitted she had had syphilis in her youth. And where a proper history was obtained it more frequently revealed a bad and dissolute than a good life.

Rarity of General Paralysis among females of the upper classes.

Dr. Clouston in his book on Mental Diseases states

"I have only seen three females in the rank of ladies suffering from General Paralysis"

The case of one of these three is recorded in this thesis. This lady had led a wild life and had what was believed to be a specific eruption on her body.

Syphilis must be much rarer among ladies than among females of the lowest class, where General Paralysis is more common. The same remark would however apply to alcoholic and other excesses.

The type of the disease is milder in Women than in Men.

The 28 cases have been divided roughly into mild and acute. Twenty were found to have mild attacks and eight were acute cases. Some of the latter were quite as acute as the worst male cases and ran a rapid course; but it is at once seen how much milder the type of the disease as a rule is in women. It will be noticed that many of the cases were well advanced in the disease before there was any urgent necessity to send them to the Asylum - indeed many were easily managed and had lived at home or in the Poorhouse for months or years in a state of mild enfeeblement of mind.

So many female general paralytics are so to speak "colourless" cases of insanity that it leads one to think not a few end their days in their homes or in

the Hospital Wards of the Poorhouse undiagnosed.

Even in Asylums a female General Paralytic (as in case No. VII) may not be diagnosed and for the general practitioner these "colourless" mildly demented women must be very difficult to diagnose as General Paralytics.

#### Grandiose Delusions.

Ten of the twenty-eight cases had at some time in their illness grandiose delusions.

#### Suicide and General Paralysis.

General Paralysis soon goes on to mental enfeeblement and therefore the suicidal impulse is rarely seen except it be at the very beginning of the attack. Three of the twenty-eight cases had a suicidal propensity in the early stage of their illness.

#### "Congestive" Attacks.

Of the twenty-eight cases no less than fifteen had either epileptiform or apoplectiform "congestive" attacks, in five of the cases there is no record of any "congestive" attack, in three the subsequent history from the time they left the Asylum till their death does not warrant a conclusion one way or another; and of the six living cases only one up to the present has had a "congestive" attack.

#### Remissions.



Five of the cases had remissions of such a decided character that they were discharged "recovered" from this or other Asylums, but all found their way back in less than fifteen months from their discharge.

Three other cases are of interest on account of partial remissions. One was boarded out in the country for four years as a chronic harmless insane person, one was nursed in a Poorhouse Hospital for two years before she needed Asylum treatment again and another is at present living at home, and gives no trouble.

#### Duration of illness.

In giving the length of the illness remissions have been discounted and the time counted from the first onset of the mental symptoms. Of the twenty-eight cases one has been quite lost sight of, six are known to be still alive and twenty-one have died. Taking first those who have died the length of their illness was as follows.

3 lasted under one year.

6 lasted under two years.

8 lasted under three years.

2 lasted under four years

1 lasted under five years and

1 lasted under six years.

Judging from the length of illness of those who have died it would seem that General Paralysis in females is quite as rapidly fatal as in men.

Of the six cases who are still alive.

3 have lasted under two years.

2 have lasted under three years and

1 has lasted under under five years..

### Post-Mortem Examinations.

In fourteen of the twenty-one cases that died there was a post mortem examination which confirmed the diagnosis. Thirteen of these post mortem examinations were done by three successive Pathologists to the Royal Asylum - Drs. W. H. Barrett, Jas Middlemass and W. F. Robertson. A short digest of the morbid brain conditions is given with each case.

For comparisons it seems important to quote.

Dr. W. Julius Mickle, whose book on General Paralysis has made him the leading authority on the disease in Great Britain. In an article contributed to Hack Tuke's Dictionary of Psychological Medicine he thus summarised his experience of the course of General Paralysis in Women.

"In females, general paralysis runs a milder and longer average course than in males, and its remissions are less frequent and less marked.

Mentally there is more often a quiet dementia; physically, spinal symptoms are less often decided, the ascending form of General Paralysis is more rare, the chief special seizures are less frequent and severe; On the contrary, the hysteriform seizures occur in women

chiefly. At the onset the menses may be irregular, or later become suspended. Rey found in the hysterical cases frequently, eroticism and maniacal excitement with continual mobility. The hysteria yields ground to the General Paralysis. Régis finds General Paralysis occur very rarely in hysterical women."

### Syphilis as a Cause of General Paralysis.

In Germany it is the commonly accepted belief that General Paralysis is caused in most cases, if not in all by Syphilis.

Most of the British Alienists do not agree with this opinion. Much may be said on both sides, and the question is as yet it seems to me an open one. In this particular the causation of the new variety - Developmental General Paralysis - becomes important.

Both Dr. Clouston and Dr. Middlemass who have studied very carefully the eight cases admitted during the last five years conclude that in them hereditary syphilis played a most important, if not the most important part, for in no less than six of the cases there were very strong evidences of its existence both from the hereditary history and from the examination of the patients themselves. Can it be possible that a hereditary syphilitic taint plays a part in adult General Paralysis?

My Colleague Dr. G. R. Wilson wrote a paper in the "Journal of Mental Science" for January 1892 in which he



advocated a "Diathesis of General Paralysis". Many of the facts he there stated would be consonant with the theory that the General Paralytic, in consequence of a hereditary syphilitic taint has inherited a brain liable to General Paralysis. On this supposition such a brain, under certain unfavourable circumstances, is liable to take on General Paralysis, just as the lungs of certain persons predisposed to Phthisis Pulmonalis are liable to take on that disease.

Leaving the question of hereditary Syphilis, it has been proved over and over again by Savage and others that a larger proportion, at least of male General Paralytics than of the other insane have had Syphilis. The history of a typical General Paralytic is that he has led a life such as would make it extraordinary if he had not contracted Syphilis. The same it seems to me, applies to female General Paralytics many of whom have led immoral lives in the course of which they have contracted Syphilis. Yet many women are infected with Syphilis, and only a few of a certain type become General Paralytics. It is true of course that Syphilis has many manifestations and that General Paralysis may be a rare one.

Those who believe in the specific theory ask why is it that General Paralysis is an unknown disease in remote country districts, and that for instance a Highlander from a secluded country place has first to live in or near

a town before he can take on General Paralysis. On the other hand a man with an inherent brain instability tending towards restless activity is sure to find his way to an urban district.

Why should General Paralysis mostly affect those who are above the average in physical and mental development and refuse to attack the degenerate? And why do the ordinary specific remedies so efficacious in other syphilitic manifestations entirely fail in General Paralysis?

It has been argued that all General Paralytics have not had Syphilis but this is a very difficult case to prove. Take for instance Case No. XXII where for twenty years the woman had led a perfectly good life and yet spontaneously volunteered the information that she had had Syphilis in her youth. Only one of the twenty-eight female General Paralytics whose cases are here recorded showed signs upon her body of having had Syphilis, yet it is a well known fact that where a patient has had Syphilis and afterwards developes tertiary brain lesions, the other superficial signs discoverable are more than likely to be slight, even if present at all.

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In a memoir on the Etiology of Progressive Paralysis with special reference to Syphilis by Dr. Emil Hougberg, Assistant Physician of the Imperial Lappvik Asylum at Helsingfors, the conclusions arrived at are

+ Allgemeine Zeitschrift für Psychiatrie Vol. XV. P.546  
1894.

1. Progressive Paralysis, which attacks males much oftener than females, is a disorder especially of urban populations but does not there occur among women of the higher classes.
2. Syphilis has a very great part in the etiology of progressive paralysis, while it does not play any important rôle in other psychoses.
3. The outbreak of progressive paralysis, usually between the thirtieth and forty-fifth year of life, does not commonly occur until four or five years after the syphilitic infection.
4. The symptoms of the specific disorder are commonly relatively mild.
5. In comparison with syphilis, hereditary predisposition, psychic causes, alcoholic excesses, sexual excesses and traumatism have only a subordinate part in producing paresis.
6. Of the different forms of the disorder the maniacal type was most frequent, next the demented and lastly the melancholic.
7. The prognosis is unfavourable. The duration of the disease was under four years in 82.9 per cent and under two years in 43.6 per cent. Remissions occur.
8. In cases preceded by Syphilis there are no symptoms specially characteristic of specific disease.
9. No improvement was observed from anti-syphilitic treatment.



10. At the autopsy no appearances of specially specific character were found."

On the whole, and considering all the facts, it seems to me that those who believe that General Paralysis is caused by Syphilis have recently found more pegs to hang their theories on, but I do not think anything definite has been proved.

general Paralysis in Husband and Wife, both of whom had had Syphilis.

The husband of one of the cases died of General Paralysis and there was a very distinct history of his having given his wife Syphilis. In the Chicago Medical Recorder for October 1893 Dr. Richard Dewey records "Three cases of General Paralysis in Husband and Wife, with Syphilitic Infection in each case certain or very probable." Such cases are admittedly rare and do not seem to me to help one towards any conclusion as to the relation of Syphilis and General Paralysis. There are at present in the Asylum two husbands and wives and I have known several others, who suffer from insanity other than General Paralysis, but it would it seems to me, be wrong to conclude that the circumstance was other than accidental.

The children of General Paralytic Women. consider- the lives many of the women have been known to lead, it is not wonderful they leave behind but few children. Very few of the women seemed to have children living, and none had large families.

Handwriting.      The following are specimens of handwriting done by four female General Paralytics on March 17th. 1894.      They were all set down with pens and ink at the same table, and were told to write the Lord's Prayer.

Photographs.        The following are photographs of four of the cases taken on March 7th. 1894.    The paretic appearance of the face, and the mindlessness of expression is well shown especially in two of the cases.





the Lord Pray  
our father who art in heaven  
Hallowed by thy name thy  
kingdom come thy will be  
done on earth as it is in

This handwriting was done on March 17th. 1894, by  
Mrs. P. who was admitted Feb. 28th. 1893.





x 111 *James Lawrence*

*W W U*

*WRUTHE*  
*W*

This handwriting was done on March 17th. 1894, by

Mrs R., who was admitted August 21st. 1891.









My dear Mr. C. I have just  
received your letter of the 17th  
and am glad to hear from  
you. I am well and hope  
this finds you the same.

This handwriting was done on March 17th. 1894, by

Mrs. C., who was admitted Dec. 8th. 1891.

During the year 1889 five adult and no developmental cases were admitted.

Case I. Mrs R. - , aged 39, admitted 30th. March 1889.

History. She was naturally of a cheerful disposition. For several years before 1887, she had been very drunken and during 1887 when she could not get whiskey she drank methylated spirit. She had an attack of Suicidal Melancholia, when pregnant for which she was treated in the Royal Edinburgh Asylum from November 26th. 1887 till February 8th., 1888 when she was discharged "recovered". She was at that time diagnosed as a case of Insanity of Pregnancy, complicated by Alcoholism, although certain suspicious tremors, especially about the face, which were put down as caused by alcohol, were noted. For at least a year before coming to the Asylum the second time she got no drink to speak of. She was never quite the same after the first attack and her friends just noticed a gradual slow mental deterioration.

State on admission. She had a dejected appearance and manner, and spoke in a low tone of voice. She was morbidly frightened and suspicious. Her memory for recent and past events was very much impaired. She was in an extremely dirty and neglected state. She had a weak tottering gait and staggered as she



walked; her hands were never quiet; trembled very much when doing any work, and especially when held out in front of her. Her speech was thick and indistinct and her tongue on protrusion was tremulous. Occasionally when speaking she had twitching movements around the mouth.

Progress of Case. At first she did not sleep well and was very restless at night; she did not take her food well, and was unable to do anything useful. (Her history was not obtained at first and her symptoms seemed rather to point to Alcoholic Insanity, but it soon became evident both from her motor and mental symptoms, that she laboured under General Paralysis. She became more noisy and restless, more incoherent in conversation, and tore her bed clothes into bits. She would not lie down in bed, but worked away with the bed clothes, folding and unfolding them, and saying she was preparing for a flitting. On August 21st. 1889 she had a "congestive" attack. She seemed in a stuporose state, and could not answer questions, although apparently partly conscious. She constantly moved her head towards the right side. The temperature was 99.6<sup>0</sup> F. No definite paralysis was made out that day. Next day she had retention of urine, with jerking movements of the left arm, and the tendon reflexes on the left side were much exaggerated. From this attack she emerged in a very weak state, and often was confined to bed for weeks



together. Sje lived on till November 23rd., 1889, when she died.

Post-mortem appearances. The post-mortem examination was performed by Dr. W. H. Barrett on November 26th. 1889 and the following are the more important facts and appearances noted within the skull. The brain weighed  $40\frac{5}{4}$  ozs ; there was opacity and thickening of the pia-arachnoid; there was considerable atrophy of the convolutions over the vertex, most marked about the middle zone; numerous bulli containing clear straw coloured fluid occupied the atrophied areas; the pia was only slightly adherent at some points over the vertex; the lateral ventricles were dilated slight granulations were formed upon the floor of the lateral ventricles, and more marked ones upon the floor of the fourth ventricle.

Notes on the case. This woman had not only been drunken, but her strong craving for alcoholic liquor had made her take to such a disgusting drink as methylated spirit. The history of the previous attack of Insanity is interesting. In her first attack she was melancholic and suicidal, and was regarded as a case of Insanity of Pregnancy complicated by alcoholism. Looking however to her subsequent history there is little doubt that this first attack was the real beginning of the General Paralysis, and that her pregnancy was an accident which aggravated the early symptoms.

Case II.

Mrs. B., a lady aged 41 was admitted on the 8th. September 1889.

History. The history obtained was imperfect, and many details were obviously withheld.. It was however discovered that she had been alcoholic and had led a wild life on the continent. Nine months before admission she had been so depressed in mind that she had attempted suicide, and for at least a year her friends had noticed a mental change. For ~~six~~ months she had been in an Asylum on the Continent. The medical superintendent of this Asylum describes how she had laboured under various hallucinations of the senses. Without apparent consciousness of, or interest in her surroundings she lived absorbed in her hallucinations, and all her talk touched only on the subject of the communications made to her by God. She mistook the identity of persons approaching her. She took but little interest in what was happening around her, and she appeared quite indifferent as to the well being or otherwise of her near or absent relatives and never enquired for them. On the occasion of one visit from her husband she showed some pleasurable emotion, but a few minutes later, whilst he was still with her, it had vanished and she did not ask him any questions or notice when he went away. She was disorderly and untidy and very often took off her clothes to look for some spots on her skin, which

she picked and scratched. She did not occupy herself in any way.

State on admission. It was at once evident that this good looking lady laboured under General Paralysis. There was a decided impairment of articulation, amounting almost to a slur and syllables were occasionally slipped; the tendon reflexes were exaggerated; the tongue shewed fibrillar tremblings and the gait was impaired.

The delusions were very numerous but not fleeting as they occurred in answer to suggestions. They might be classed under five groups (1) delusions of great possessions e.g. that she had millions of diamond brooches (2) delusions of personal discomfort e.g. that she had died twenty million times, that she had wires all through her hands; that insects crawled all over her skin; that she was hideously ugly; that hairs were growing all over her body etc. (3) delusions that she can injure them around her by her presence e.g. that she can kill ten million bad boys all at once. (4) A series of ideas of the nature of incantations e.g. she took reporter's watch, and finding it not a repeater she converted it as she thought into one. (5) delusions that she has brought forth all sorts of things from her body such as twenty million gentlemen from her right hip. She spoke in a jumble of English, German and Italian with some occasional Doric Scotch.



Her delusions were many of them unpleasant as well as grandiose, so that she did not show abnormal mental pleasure, indeed there seemed a sense of ill-being. She kept up a continuous flow of delusional talk, chiefly about herself. Her memory was impaired and she was very facile. At one moment she was laughing heartily and at a sad suggestion she immediately began to weep. There were hallucinations of both sight and hearing. There was some psoriasis, probably specific and the temperature was 99° F.

Progress of case. She remained in much the same restless talkative delusional state for several months. The temperature was generally about 98° F in the mornings and varied between 98.8 and 100° F. in the evening. One delusion remained very fixed. She refused to wear any red dresses because she said they burned her.

In the beginning of 1890 it was noted there was progressive mental and motor enfeeblement with increased storage of fat. The delusions were of an enormously exalted character ("millions upon millions") and at the same time there seemed to be a savage delight in exaggerated cruelty. She intended to kill millions of people and rejoiced therein, pouring out her threats with a pleasant smile and with a vindictive laugh.

In February 1890 she complained often of severe

pains darting through her head, especially during eating.

On May 21st. 1890 she had a "congestive" attack. The temperature ran up to 105.4° F. She was stuporose and confused in her mind and there was slight twitching of the left arm and face, and after the fit she perspired profusely.

By June 9th. 1890 she had become bed-ridden. She had severe fits of crying and screaming for hours at a time. She was very restless, throwing off the bedclothes and needing a great deal of care in nursing. She still talked of millions and billions of things. Both speech and swallowing were much impaired and feeding became difficult and dangerous. A bedsore developed over the left hip. There was decided paresis of the left side of the face. She slowly got weaker, her speech and swallowing became more affected, the screaming and crying fits continued, she tore up her clothes and was very restless. If left alone she rolled about on the floor of her room. Sometimes she laughed, spoke of her thousands of diamonds and bragged of the millions of insects she had killed. At other times she was angry, storming at any one approaching her, swearing at them and saying that she was being poisoned. On September 25th. 1890 she had another fit with twitching of the left hand and leg and a temperature of 99° F.

Her temperature as a rule was a little up at night. She became very restless and noisy at night so that 15 grs. of Sulphoral were given for some time. She lost flesh rapidly. All her movements became affected and her writing consisted of a quite unintelligible scrawl. She sank into the extreme third stage of the disease. She was extremely thin and weak, had bedsores, could be fed with difficulty, could hardly utter a word and was wet and dirty in habits. There was a well marked contracture of both legs and arms and she was indeed a pitiable object.

She died on February 12th. 1891.

Post mortem appearances. The post mortem examination was performed by Dr. Middlemass, and the principal facts regarding the brain were:- weight of brain  $40\frac{1}{2}$  ozs; fluid 4 ozs; pia milky and slightly adherent especially over temporo-sphenoidal convolutions; no subdural membrane; frontal convolutions somewhat atrophied: granulations in ventricles.

Notes on the case. The chief interest in this case lies in the fact that the patient was a lady, a very rare subject for general Paralysis.

The hallucinations and often consequent delusions had many of them to do with the skin; but sight, smell and hearing were also affected.

### Case III.

Mrs. S. aged 39, was admitted 20th. September



1889.

History. She was stated to have been cheerful, kind-hearted, lovable and industrious. For several months she had been irritable, nervous, excitable and anxious about the future. She more than once asserted that she had had a shock and cried out that her limbs got stiff and that her feet felt queer. She could not sleep at night and worried herself very much about an operation which her sister was having. She then got delusional and suspicious. She thought she was poisoned, that she was about to be ripped up by the Whitechapel fiend and that she was suffering from leprosy which was making her insane. Then she talked constantly about the "bad disorder." One day she thought her house was being broken into, that it was on fire and that her husband was being burnt. These delusions led her to try and jump through the window. After this she thought everything and everybody smelt badly, she thought her husband had been divorced from her and took a very decided aversion to him. She threw her watch in the fire from no particular reason.

From being a tidy cleanly woman she became a slut and entirely neglected her personal cleanliness. State on admission. She was mentally confused, emotional, delusional and usually depressed. She could not carry on a conversation on account of the intensity of her delusions which absorbed her thoughts.

These delusions or probably hallucinations were all of a painful nature and usually had to do with common sensation or with smell. She fancied there was a black dog on her back, that her skin was diseased, and that everything smelt badly. She also believed that she was poisoned and ripped up. She was weeping, wringing her hands or otherwise showing some active signs of grief. Yet suddenly for a minute or two she would become happy and jolly. Her voice was temulous and her lips and tongue showed the fatal tremor.

Progress of Case. She varied considerably but was always delusional. For some days she would be most maniacally excited and on others would lie quiet and dormant on a sofa.

On November 1st. 1889 she was having a very severe attack of herpes cervicalis involving the ear. and at the same time her bladder became distended, she was unable to pass urine and it was necessary to catheterise.

On June 1st. 1890 she was steadily deteriorating. She never conversed rationally. She had her ups and downs of excitement and calm as before. She became very dirty in her habits. She had delirious periods and it seemed as if scenes in her past life were passing through her mind. She fancied she saw scenes of drunkenness and violence and certainly gave onlookers the impression that her life had been a very disso-

lute one.

She gradually went down hill mentally and bodily and died on 4th. April 1891.

Post Mortem appearances. The post mortem examination was performed by Dr. Middlemass. The brain weighed 41 ozs; slight subdural membrane; pia very milky and slightly adherent anteriorly; convolutions except occipital much atrophied; granulations in ventricles numerous.

Notes on the Case. This woman also had hallucinations of sensation and smell as marked symptoms.

Case 17.

Mrs. S. aged 33, was admitted on December 7th. 1889.

History. She had been a quiet steady good worker. On February 8th. 1888 she was sent to the Midlothian and Peebles District Asylum and I am indebted to Dr. Mitchell for particulars regarding her case at that time. She was said to have been ill three weeks. The medical certificates describe her inability to continue a rational conversation, her constant watchfulness of manner, her peculiar restlessness of body and mind; and they describe her as constantly moving about the house without any object, singing hymns, talking constantly and laughing immoderately. On admission she was the subject of maniacal excitement and her general health was impaired. On February



18th. 1888 it was noted that after a few days restlessness she settled down. She had been destructive tearing her clothes and very abusive. Except for ~~anoemia~~ no bodily disorder seemed present; From this attack she soon got well and was discharged "recovered" on March 11th. 1888. On April 3rd. 1888 she was re-admitted to Midlothian and Peebles Asylum and it was stated she had been two weeks ill and that the cause of this second attack was grief at parting with her husband. She was in a state of acute mania, the pulse was weak but otherwise her bodily health seemed fair. The medical certificates describe her extravagant incoherent language, her delusions of grandeur e.g. that she had had four children at one birth, that she got £10,000 from the Queen and that she must marry another husband. She remained for some time acutely excited, and in addition there was severe ~~constipation~~ and refusal of food, so that she was a very difficult case to treat.

During May 1888 she remained very excited and the bladder needed to be catheterised. On June 15th 1888 a haematoma auris formed on the left concha and on June 25th on the right concha. At this time she often had lucid intervals in the evenings when she answered questions coherently. On August 31st. 1888 she was eating food ravenously instead of refusing food, and she became very destructive to her clothes. Another haematoma formed on the left concha. By October 8th. 1888 she had got fat and fresh looking,

had gained two stones in eight weeks and there were no further difficulties with the bowels and bladder. Although enfeebled in her mind she remained quiet and easily managed and was removed home by her friends on May 2nd. 1889. At home she became more demented, dirty and untidy, and was quite unable to look after herself or her house.

State on admission. She was greatly demented. She could not carry on a conversation properly, at times talked incoherently, had a silly childish manner and her memory was very bad. She was facile and docile, gave no trouble, could not settle down to work and stood about in corners and out of the way places or wandered aimlessly about. There were old othoematoma her lips and tongue were tremulous, her pupils dilated and sluggish, her expression paretic and all her muscular movements feeble and unsteady.

Progress of case. She remained in much the same state except that she gradually went down hill till February 20th. 1891 when she had her first "congestive" attack. There was loss of consciousness, general convulsions and a rise of temperature to 100° F. She never recovered from this attack and died on 24th. February 1891.

Post mortem appearances. The post mortem examination was performed by Dr. Middlemass. The brain weighed 40½ ozs; fluid 2 ozs; pia milky, especially at base and adherent over frontal regions and at base; no

subdural membrane; frontal convolutions slightly atrophied; a few granulations in the ventricles.

Notes on the case. This is another case where there had been a remission.

Case V.

Mrs. C. aged 28, was admitted from the City Poor house on December 18th. 1889.

History. No proper history was obtained but she was said to have suffered from want and to have been enfeebled in her mind for some months. The medical certificates describe her peculiar manner and her expression. She had a vacant listless look, wandered aimlessly about the poorhouse could not settle to work, attempted to undress herself at dinner, took goods from the store of the poorhouse, returning them willingly when accused of the theft and was careless and even dirty in her habits.

State on admission. She was greatly confused in her mind and was silly in conversation, although coherent. No motor signs were observed, except that her speech was defective. She was looked on as a degenerate, and she was thought to be congenitally weak minded. However under good feeding and careful nursing she greatly improved. She became stouter in body and stronger. Her memory much improved, and though not displaying intelligence of a high order she was not quite so silly as when admitted. She was quite



contented and industrious and did not ask to get away. By February 13th. 1890 she was in such a mental condition that she could not with fairness be kept in the Asylum and she was discharged technically recovered.

Readmission on June 9th. 1890.

She was very emotional easily being made to laugh or weep, she had a very silly manner, talked a good deal of nonsense and believed that she had two millions of money. She offered impossible presents to those around. Her pupils were dilated but equal and responsive; her tongue was unsteady and her articulation droning and imperfect. Under treatment she fattened up and was always jolly and grandiose in her ideas.

On November 19th. 1890 she was transferred to Kirklands Asylum, Bothwell. She was then facile in conversation and had many insane delusions e.g. that she had two millions of money. Her bodily health and condition were weak. She had impaired articulation and walking with pupillary and other signs pointing to General Paralysis. Dr. Campbell Clark of Bothwell Asylum kindly informs<sup>me</sup> that that patient died on 19th. November 1890 of General Paralysis. A few days before she died there was noticed marked motor and sensory paralysis of the left side, exaggerated plantar reflex of the left foot, but absence of plantar reflex in the right.

Note on the case. This is another case with a re-  
mission.

During the year 1890 three adult and two developmental cases were admitted.

Case VI.

Mrs. Mc. G. aged 49, admitted January 27th 1890.

History. She had been intemperate, her mother had been insane and her friends attributed her illness to the "change of life". She was found wandering by the police about the streets, not knowing where her home was. This had often occurred before. She always had a desire to leave home, was suspicious of her neighbours and had the delusion that her husband had married another woman. Her speech was observed to be defective and at times it would become so bad that her friends could with difficulty understand what she said. This would wear off in a day or two and she would speak better again. At least for the last 9 years she had after her drinking bouts taken convulsions chiefly affecting the left side and with loss of consciousness. For some time before admission she had been kept from drink and had had no fits in consequence.

State on admission. She was considerably demented, she could only answer a very few questions correctly and usually gave stupid and meaningless answers. She was restless and constantly moving about. Her expression was silly but at the same time jolly and she laughed a great deal in a foolish manner. Her memory seemed almost ab-



absent. She did not express any gross delusions. The speech was tremulous and impaired, she was generally tremulous, her gait was unsteady: and the reflexes were exaggerated. She had Valvular disease of the heart and was very weak.

Progress of case. All her cheerfulness and good spirits deserted her in a few days and she became a case of mild excited melancholia. She was mentally confused and ever anxious, she stood about the ward looking utterly miserable or wandered aimlessly about. She rapidly went from bad to worse and became a demented quiet general Paralytic in the third stage. She was quite incoherent and later owing to the great impairment of speech it was impossible to make out anything she said. She became too, very wet and dirty in her habits. For a few days before death she became happy again, and smiled in a silly but feeble way when spoken to. She died on July 18th. 1890.

Post-Mortem Examination. was made by Dr. W. H. Barrett. The pia-arachnoid was milky and adherent at some spots over the frontal region; the frontal and parietal convolutions were much atrophied; the lateral ventricles were much dilated; granulations in the ventricles.

Notes on the Case. This is another case with a decided alcoholic history. The fact that for at least 9 years she had taken convulsions after her drinking bouts is of interest. She was evidently far advanced in the disease when admitted.

Case VII.

Helen K., a single woman aged 45 was admitted on August 6th. 1890.

History. On September 5th. 1885 she was admitted for the first time. At that time she had been for four months living in St. Cuthbert's Poorhouse in a state of mild enfeeblement of mind; but becoming excited and talkative. restless and violent she was sent to the Asylum. At this time she was restless at night and had delusions of suspicion and hallucinations of hearing and tended to get very excited if crossed in any small way.

State on first Admission. She looked and acted as if she were depressed in mind, and when talking about her suspicions her eyes were suffused with tears. On the other hand she could easily be made to laugh and she was childish in her manner and talk. Her memory too was bad and when asked several questions in succession it seemed to tire her and evidently to save herself the bother of thinking she replied "I don't know". Her articulation was thick and faltering, her pupils were very contracted and her knee jerks could not be elicited.

Progress of Case. She remained in much the same state and was not diagnosed as a General Paralytic. In January 1886 she had settled down considerably. She was much enfeebled in her mind, with great loss of memory and considerable facility in conversation, but there was no increase in her motor symptoms so that on August 11th 1886 she was boarded out in life.

Readmission. on August 6th. 1890.

State on second Admission. She was deeply demented, had the facial, speech, tongue and other motor symptoms of Genreal Paralysis and was suffering from pleuro-pneumonia, from which she died on August 11th. 1890 five days after her readmission.

Post-mortem Examination.

Unfortunately no post-mortem examination was allowed.

Notes on the case. This case was interesting because she was not diagnosed in the early part of her illness when in the Asylum, and she was actually boarded out in the country for four years. The kind of illness she laboured under was only discovered on her readmittance, the symptoms and signs then being very evident.



Case VIII.

Mrs. B. aged 51, admitted November 4th. 1890.

History. She was said to have been a cheerful steady woman, and her illness was believed by her friends to be connected with the climacteric period of life. She first lost her memory and became childish in her talk and manner, then she got excited about trifles and had delusions of identity. At times she was extremely and morbidly happy and at others very quiet: She took a violent dislike to her daughter without any cause. The enfeeblement of mind had been noticed for at least two years, but the more acute symptoms had only been present a month. The medical certificates describe her as talking nonsense and as recognising people whom she had never seen before as old friends. They also describe her restlessness and sleeplessness at night, her great loss of memory and her unreasonable dislike to her daughter.

State on Admission. She was in a state of hilarious mania, she was talking and laughing constantly and was very jolly and amorous: She was very restless, could not sit still a minute, was childish and facile in conversation, her memory was much impaired and she had delusions and ideas of a grandiose kind such as that she could lift 20 stones. She was a short stout florid person, her pupils were unequal and sluggish to light the tendon reflexes were ex-

exaggerated, her speech was slurred, her tongue and circum-oval muscles were tremulous.

Progress of Case. She remained for some weeks in a state of simple hilarious mania, was very talkative, very amorous constantly laughing and she looked the picture of good nature. She had some difficulty in pronouncing test words such as "hippopotamus", there was marked tremulousness of the tongue and lips and the pupils were very sluggish and unequal as well as irregular in outline. She was also very facile and amnesic.

She settled down considerably and when the mental "spin" abated so did the motor symptoms, but neither went entirely away.

On July 1st 1891 she was discharged to the care of her daughter, and she has since been lost sight of.

During the year 1891 seven adult and one developmental case were admitted.

Case IX.

Mrs. F. aged about 50, admitted 2nd March 1891 from the Royal Infirmary.

History.

She was of a cheerful disposition, but nervous and easily excited. She was said to be a steady, active, conscientious worker. Except that a cousin of her grandfather tried to commit suicide there was no known hereditary tendency to insanity. For about 18 months she had been subjected to a good deal of worry about household affairs. About a month before admission she became more easily excited and emotional, more talkative and had delusions of various kinds. Just before admission her delusions were more uniformly grandiose and she got still more talkative. A friend had noticed the marked tremors round the mouth for ten days. The medical certificates describe her constant talk, her facility in conversation and her grandiose ideas and delusions. She said she intended to build for herself a house with glass walls with a beautiful prospect and the said house was only to be frequented by ministers.

State on admission. She had marked tremors of the face especially around the lips, many words were



slurred when speaking; her tendon reflexes were very active and her pupils which acted fairly to light, were contracted.. She was full of delusions chiefly of a grandiose character, and she was constantly talking and gesticulating. At times she was quite incoherent in talk and her memory, which was probably very bad, could not properly be tested.

Progress of case. For the first night or two she was restless and talkative but then she settled down into a quiet well-pleased silly person. As the extreme exaltation of ideas and excitement passed off the tremors and other motor symptoms became less marked. She settled down to needle-work, grew fat and although silly when spoken to, she was always contented and smiling. This morbid contentedness with her surroundings was the only feature of her exalted frame of mind remaining. She was distinctly facile and weakminded, her remarks were pointless and never complicated. There was some defect in her speech, her face was fat, expressionless and heavy and her tongue tremulous. Her gait became weak and ungraceful.

She left the Asylum, a quiet general paralytic on July 29th. 1891 to be nursed by her sister. She was afterwards sent to Aberdeen Asylum and died there in July 1893.

Case X.

Mrs. C. aged 38, was admitted March 31st. 1891.

History. She had been an emotional, excitable, rather hysterical woman, but had been steady and industrious, according to her husband's account. For a year or so she had been rather restless and could not settle down to work. Ten days before admission she became very emotional when hearing a sermon at Church. The previous night she had been sleepless and after the sermon she continued to talk about it day and night and never got any sleep. The medical certificates described her excited behaviour, her incoherent conversation and her constant talk about the sermon.

State on admission. She laboured under very acute mania. She laughed, shouted, sang and danced, was quite incoherent in her talk and could not answer questions. Except that her pupils were unequal there were no other motor signs noticed on her admission and she was regarded as a case of uncomplicated Acute Mania.

Progress of case. For some days she remained very excited and sleepless, but took food well. After being in a state of great excitement for over a fortnight she settled down and began to help the nurses to work. Though still in a delusional state she became quiet and coherent in conversation. For another fortnight she was again very excited. At times she became suddenly violent being probably influenced by

her delusions. She was noisy talkative and sleepless for some nights and then she suddenly became quiet and manageable. In July 1891 her expression for the first time suggested General Paralysis and her pupils were found to be unequal, and they hardly reacted to lights at all. Some of the mental symptoms also suggested this grave disease. By October 1st. 1891 she had in consequence of the repeated attacks of excitement become thin, weak and anæmic. She developed numerous delusions of identity and believing one of the nurses to be an old acquaintance to whom she owed a grudge, she constantly assaulted her and it was necessary to remove her to another ward.

By February 10th. 1892 there was no doubt about the diagnosis and the expression of the face was quite paretic, the tongue was tremulous, the gait slouching and unsteady, she had difficulty in rising quickly from a sitting posture, her pupils were very unequal, and strange to say reacted actively but oscillated greatly after reacting. Then she became quiet and demented and needed Hospital treatment. She gradually got more enfeebled bodily and mentally and was on April 4th., 1893 taken away by her husband to Durham Asylum where she still is.

Case. XI.

Mrs. J. aged 36, a soldier's wife who had ac-



accompanied her husband on Foreign service was admitted from the Royal Edinburgh Infirmary on April 3rd. 1891 History. For about three months she had been failing mentally. Her expression had changed, her memory had become very defective, she was restless and wandered about in her house aimlessly at night, and she was useless in her house during the day. She was taken to the Infirmary on account of a fit which had affected mostly the left side and left it paralysed. She was soon removed to the Asylum on account of her mental state.

State on admission. She seemed perfectly pleased with herself and her condition and could be made to laugh very readily. She was fairly coherent in conversation, did not seem to have any marked delusions and could answer questions; but her memory was so bad that no question which tested it was ever answered properly and she was very facile jumping quickly from one subject to another. She was well nourished. The pupils reacted sluggishly to light but were equal; she had marked tremors about the face, lips and eyebrows when speaking and her speech was much impaired. She had left sided hemiplegia with exaggerated tendon reflexes on that side and a constant twitching of the left hand most marked in the little finger. Sensation seemed quite normal.

Progress of case. She remained in much the same state mentally and bodily till she was removed to

Berwick on Tweed Union on May 8th. 1891 where she stayed till 3rd. June 1893 when she was sent to Northumberland County Asylum. I am indebted to Dr. Athelstane Nobbs Assistant Medical Officer there for further particulars regarding her. In the Berwick Union she had been dirty in habits, restless, at times noisy and subject to delusions. She had also has several fits. On admission she was lying helpless in bed, smiling vacantly, could not answer the simplest question and was quite demented. Physically she was enormously fat; pasty in general complexion; had internal strabismus ; was unable to move and every office had to be done for her; control of sphincters was apparently abolished so that she was wet and dirty; She was certified as labouring under Dementia with General Paralysis in an advanced stage. On August 13th. 1893 she had a "congestive" attack and she died on August 17th. 1893. Post Mortem examination, shewed the brain only to weigh 35 ounces; brain substance generally soft; membranes slightly opaque and thickened, especially in frontal region; pia markedly adherent to convolutions, which were much wasted; considerable subarachnoid effusion; ventricles distended; ependyma roughened; grey matter unusually pale and much atrophied; minute cortical vessels much hypertrophied. Notes on the case. This woman had so great a remis-

sion in her mental symptoms that she was able for two years to live in a Poorhouse.

Case XII.

Mrs. R. aged about 45, was admitted on 21st. August 1891 from the Royal Infirmary.

History. Beyond the fact that she had been alcoholic we had no further history. She seemed to have no friends and could give no account of herself, owing to the great defect in memory. The medical certificates describe her rambling talk, her great loss of memory and her 'inability' to carry on a conversation.

State on admission. On the whole she was melancholic. She had a melancholy expression of face and easily cried. There was considerable enfeeblement of mind with childishness, great facility, and extreme loss of memory. She had delusions of identity, and thought that all those she saw were old friends of hers. She had an expressionless face, she was very weak on her legs and walked with difficulty and her fingers when she tried to sew were very tremulous, the ~~three~~ jerks were absent and the pupils unequal. She was first regarded as an ordinary alcoholic case.

Progress of Case. The diagnosis for some months remained doubtful. She had many of the motor signs of General Paralysis, but these could equally be accounted for on the theory that alcohol alone had produced them. However later the motor signs increased



She was paretic especially in the lower limbs and to some extent in the hands. Her face assumed a stolid semi-paralyzed look and her smile was inco-ordinate. Her tongue and limbs were tremulous, and her muscles became wasted to some extent. Mentally she was very facile and very amnesic. She could be made to say or talk anything one pleased, and she would adopt any emotion wished. If a death was talked about she cried, and in a few seconds she would laugh at some ludicrous suggestion. She seemed to have no memory for recent events, and months after her admission if one suggested that she came yesterday, she agreed without hesitation. On Jan. 1st 1892, an account of her increasing general paralysis, she was sent to our Hospital. Mentally she remained much the same. From this date she has gradually become more enfeebled, in her mind and body. She has had no attack of excitement, and no "congestive" attack. She is still in the second stage of the <sup>disease</sup> with marked motor and mental enfeeblement. On March 8th. 1894 it was noted "She has marked tremors of the facial muscles when speaking or laughing; the right pupil is considerably smaller than the left; when not speaking or smiling her expression of face is very blank and paretic; the tongue is tremulous; her speech is tremulous at times, but if she makes an effort she can say "hippopotamus"; her gait is somewhat weak, waddling, and slow, and in turning she moves

slowly and makes a wide turn; the knee jerks are exaggerated. Mentally she has a silly smiling expression; laughs immoderately at times; tends to be erotic; her memory is very defective, her conversation is facile and childish; at any sad remark she can easily be made to cry; she does not seem to have any gross delusions.

She is well nourished, takes abundant food, sleeps well and is able to do simple things in the way of helping the nurses."

#### Case XIII

Mrs. P. aged 42, was transferred from Midlothian and Peebles Asylum on November 13th. 1891.

History. Dr. Mitchell informs me that the patient was admitted to the Midlothian and Peebles Asylum on May 21st. 1890, and that she had then been insane 6 months. On admission there was marked mental exaltation. She was jovial, happy and erotic and tried to hug and kiss the doctor who admitted her. She was restless, fidgety and talkative and she was confused and stupid, so that her reasoning power was impaired. She had many absurd but fleeting delusions. The pupils were equal but contracted; the tongue was tremulous and the expression of face was partly wiped out.

On June 17th. 1890 she took several epileptiform

attacks. She began to tear her clothes and get filthy in her habits. After this she steadily went down hill bodily and mentally and she was transferred to the Royal Edinburgh Asylum. Her friends said that she had been a bright, cheerful active woman, fond of society, not intellectual, not ambitious, but always dressy and vain of her own powers. She had evidently been an attractive woman and had been twice married. A paternal aunt died of paralysis and a maternal aunt had an imbecile son. She was originally married to a man who gave her syphilis. She lived separate from him and went to the Continent with a lady, and seems to have led a very fast life. After being abroad in Italy for a year or two, she came home and again lived with her husband.

He soon after became a General Paralytic and was sent to Inverness Asylum where he died. She had in the meantime kept a lodging house, and had got on too familiar terms with one of her lodgers, and within a fortnight of her husband's death she married him. At this time she was a vain conceited woman of great spirits who dressed decidedly above her station. It is almost certain also that she drank a good deal, though she never got publicly drunk.

Three years before admission she had become violent tempered, although previously she had been of even disposition. Her dresses became loud and



eccentric in style. She continually talked of things that occurred twenty years before. She became more and more restless and continually worked at useless things. Although bidable and reasonable at first she latterly became unmanageable and unreasonable, and tore up her clothes and other things. She imagined a fortune had been left her. She ran her husband into debt buying jewels and she was fond of adding stones to her rings and of changing them. At Midlothian and Peebles Asylum she had a "congestive" attack which left her dirty in habits.

State on admission. She was in an advanced state of General Paralysis. She was very paretic and could hardly stand alone. Left to herself she rolled about the floor. She had a paretic physiognomy. The tendon reflexes of the arms were exaggerated and those of the legs diminished. Her tongue and facial muscles were tremulous, her speech interfered with and her temperature  $100.2^{\circ}$  F. Mentally she was in the dementia of the third stage with a great deal of restlessness and excitement. She sang, roared and smacked her lips all in a very general paralytic way. She frequently muttered unintelligibly to herself or talked incoherently of champagne, oysters and red herrings as if she was fond of a good feed.

Progress of case. After existing like the classical General Paralytic in the third stage, shrunk to a

skeleton, utterly helpless and with bedsores, she gradually sank and without convulsions died on January 2nd. 1892.

Post Mortem Examination. Unfortunately none was allowed.

Notes on the case. The great interest of this case lies in the fact that she and her first husband both had syphilis and both subsequently had General Paralysis.

Case XIV. Mrs. H. aged 37 admitted November 27th 1891 from the Maternity Hospital.

History. She was described as formerly of a cheerful disposition but nervous. Dr. Turnbull Medical Superintendent of the Fife and Kinross District Asylum has kindly sent me the following notes:- "Her first admission here (Fife and Kinross Asylum) was on 18th April, 1890. The admission schedule stated that she had been ill for only one day; but her husband afterwards informed us that a change in her disposition had been gradually coming on during the previous two years, and that in place of being a bright and active housewife she was now forgetful, confused, and careless. Previous to coming here she had been nursing a child for several months; and when she ceased nursing a mammary abscess had formed and was still troubling her when she was brought to us. At the

time of admission her mental state was one of simple Melancholia, - without showing any definite delusions she was depressed, wanted to be dead, and had on her neck several superficial scars from an attempt at suicide by cutting her throat. No special motor symptoms were noticed at this time except marked contraction of the pupils. The history of the causation was - as so often happens - very indefinite. The husband knew of nothing to account for the illness; patient herself said that she became dull after unexpectedly hearing of the death of a relative. Her bodily health was much run down at the time of her admission here, apparently from the lactation and mammary abscess; and at the time I looked upon this as the probable cause of the turn of mental depression which necessitated Asylum care. But of course this does not account for the General Paralytic condition, which though I did not recognise it at the time, had apparently been insidiously coming on for between one and two years. Patient had an illegitimate child several years before marriage; otherwise she seemed to have led a fairly steady life.

After she came here the mental symptoms improved quickly. The depression passed off, and she became bright, cheery, active and working well, though there was still a certain amount of childishness. The mammary condition gave a good deal of trouble, as a second collection of pus formed and there was much



difficulty in getting it properly emptied and the different sinuses healed up; but at length this was accomplished, and she was discharged on 2nd. June, 1890 "recovered". During all this time the contraction of the pupils continued very distinct, Her husband afterwards told me that she kept very well for about six weeks after going home; then she slipped back into her old stupid condition, but apparently without acute symptoms of any kind. In the autumn of 1891 her friends sent her over to the Royal Edinburgh Infirmary for advice: and from the Infirmary she was, I understand removed to Morningside."

She was admitted from the maternity Hospital to the Royal Edinburgh Asylum far advanced in pregnancy. When in the Maternity Hospital she had suddenly become violently excited, and had snatched the babies from their mothers and threatened to kill them.

Directly after this attack of excitement she became dull and taciturn, could give no proper account of herself and could not tell where she was.

State on admission. The expression was that of mental depression. She sat silent and motionless and appeared stuporose and confused in mind. Her memory was very bad, and answers to questions were only elicited when questions had been repeated several times. She was thin and miserable looking and had the usual motor symptoms of the disease

Progress of case. Three days after admission she was delivered of a dead child. The puerperium was complicated by an attack of bronchitis but otherwise everything went on well. Her mental and motor powers gradually became more and more implicated.

She could not dress or undress herself or keep herself clean and she required much care and nursing.

On January 13th. 1892 she was transferred to Fife and Kinross Asylum and Dr. Turnbull has favoured me with the following further notes about her:- "She was transferred to Fife on 13th. January 1892. Since that time the mental and the motor symptoms have increased distinctly, though very slowly. She has had three "congestive" attacks. At present she can move about pretty actively, but the gait in walking is unsteady. Articulation is markedly impaired, even for ordinary words; and some of the test words she can hardly get round at all. Both pupils are contracted especially the left which is almost pin-point. She is still able to assist in housework, etc., but the mental enfeeblement, childishness, facility, and forgetfulness are very considerable, and the feeling of <sup>self</sup> complete\_satisfaction and contentment is well marked, though in a quiet and unobtrusive way.

Her present condition leaves, I think, no doubt that the diagnosis of General Paralysis is quite correct, and an interesting feature in her case is the

the very slow and gradual way in which the "progression" of the disease is showing itself."

Case XV.

Ann C. aged 44, admitted from Craiglockhart Poorhouse December 8th. 1891.

History. There was very little history to be got. She had been for several months in the Poorhouse, and before then had kept house for her father, a weak-minded old man. Her mental powers had been failing for over a year before admission. In the Poorhouse she sat with a vacant expression moping all day and doing nothing. She refused her food and got dirty in her habits. She never spoke unless spoken to, and then generally answered in monosyllables.

State on admission. She was much demented, and could not answer a question sensibly. She could tell nothing about herself and her memory seemed a blank. In expression she looked very depressed because of the marked facial paresis on both sides, but none of her ideas were melancholic.

The pupils were unequal, the left being considerably higher, the knee jerks were exaggerated, she had a slouching gait and she was thin and anemic.

Progress of case. For a time she was so weak and her gait so unsteady that she had to lie in bed. Her old babyish fatuous expression of face gave one



the idea of utter mindlessness. Her conduct never betrayed the faintest spark of intelligence. All her motor acts were feeble. She lay in bed like a log, never complained, nor indeed took interest in anything. She appeared just a mass of inert clay; and never was even restless or noisy.

Gradually under treatment she began to improve as regards her physical health. She got fatter and less pale and gained in strength, so that she was able to be up and strange to say she is still (13th. March 1894.) living, though very demented and paretic. She has probably been saved from death because she has had no ~~maniacal~~ outburst.

She is verging on the third stage and becoming very weak bodily and very mindless. A note dated March 9th. 1894 says. "The right pupil is much larger than the left and neither seem to react to light or distance; her face has a placid, inert expressionless appearance, and her cheeks seem to hang in a paretic way. Unless spoken to repeatedly she remains silent with her head hanging down; the ~~long~~ tongue is tremulous; facial tremors are also present when she speaks; there is a constant aimless protrusive sort of movement of the lips; speech is thick and sluggish, her gait is slow and slovenly; she requires to be fed and dressed, cannot do any work and requires to be kept tidy. Patient is

coherent when spoken to and only gives short answers to questions; she does not express any delusions."

During the year 1892 five adult and two developmental Cases were admitted.

Case XVI.

Isabella F., aged 39 a charwoman was admitted from St. Cuthbert's Poorhouse, where she had been for about four weeks, on March 14th. 1892.

History. Except that her mind had been gradually failing, and that she was supposed to have been alcoholic no further history was obtained. The medical certificates describe her heavy stupid imbecile look, her loss of memory, her nocturnal restlessness, and her inability to answer simple questions properly or to take care of herself.

State on Admission. She had a dull stupid look her memory was utterly bad; she was mentally confused and slow in taking up a question. In conversation she was so facile as to be almost incoherent, and there was a vein of morbid contentedness with herself and her surroundings running through all her talk. She was a rather anaemic, well conditioned, square built woman. Her pupils reacted very sluggishly, her tongue was tremulous and pointed to the left when protruded; the left side of the face was more paretic than the right; the gait was unsteady; she was dirty and wet in habits; her articulation was slow and shaky, and many words were very indistinctly pronounced both knee jerks were very active and the temperature was



99.8° F. The diagnosis of General Paralysis was made, and it was surmised from the rise of the temperature and from the paresis of the left side of the tongue and face, together with the clouded mental state, that she was in a "congestive".attack.

Progress of case. Further observation during the next day or two, only further proved that she was a typical example of a quiet demented female general paralytic. She had a stolid, impassive face, and the paresis noticed in admission on the left side of the face and tongue extended to the arm and leg of the same side. She was awkward and unsteady on her legs, and spoke slowly in a sad monotone. She could not pronounce properly such a word as "hippopotamus". She answered questions, but only simple ones, slowly and stupidly, and it was difficult to drive an idea into her head.

On March 18th. four days after admission she became restless, and that night fell out of bed. It was evident that she had had a fit. She was almost comatose, and there was conjugate deviation of the pupils to the right. The temperature on the left side was 99.6 ° F. and on the right 98.8° F. Next morning she became unconscious and excited, and that evening she was singing and muttering to herself but would not answer questions. That night (the 19th.) she became acutely maniacal, threw off her clothes, sung and shouted, and ran round her room nearly all night. She would take no nourishment. Her face was flushed,

especially on the right side. Next day her temperature was normal. She was restless and mentally very confused and would answer no questions. At midday she has two convulsions of the right side more especially. She was very flushed. The temperature on the right side was 102.4° F. and on the left 102° F. She was very restless, grunting constantly passing her hands through her hair, and rubbing her eyes. She came out of this attack palid and quiet, but she gained a little strength and although very weak she managed to live till May 20th. 1892, when she died.

The Post Mortem Examination was performed by Dr. Middlemass. The brain weighed 43 ounces; fluid 10ounce; pia markedly milky, and adherent anteriorly, over vertex and at base; vessels atheromatous; convolutions atrophied; slightly anteriorly; granulations in ventricles, very marked.

Note on the case. This was apparently a very rapid case from the history, but from her mental and physical state and from the post mortem examination the disease had been in progress a considerable time.

#### Case XVII.

Mrs. D., formerly a mill-worker, aged 25 was first admitted May 26th. 1892.

Disposition and habits. Her husband stated that she was always "nervous", but very industrious earning £1 a week as a mill worker before he married her. As far as he knew her habits had always been good.

Previous Attacks. She had had no previous mental illness nor indeed any serious illness since childhood.

Hereditary History. Except that her family and especially her mother are said to be "nervous", nothing of importance was discovered.

Sexual History. She was married in June 1888 when she was 21. Her first child was born eighteen months after, at the eighth month, and only lived seven days. She was six months advanced in her second pregnancy when her mental state necessitated her removal to the Asylum.

History as to mental State. For some few months before she was sent to the Asylum her friends and later her husband noticed a great change in her habits and character. She got too "dressy"; she purchased needless articles, and nearly bought some expensive furniture quite unsuited to her station in life; she wished to have a larger and better furnished house than her husband could afford to support; she was overjoyed and excited about her pregnancy and told everyone about it; she went into debt without telling her husband; she took to reading exciting novels; and she could not sleep at night. There were times however when she was utterly miserable and when she cried bitterly and reproached herself for her extraordinary conduct. The medical certificates state that she fancied herself to be a lady of consequence; that she offered those about her grand situations without being able to fulfil her promises; that she was constantly asking people to dine with her and saying she would give them gold watches and other articles



of value; and that she ran into needless debts without being able to meet them.

State on admission. She was in a condition of simple hilarious mania. She boasted of the money she possessed, imagined she was a very fine lady and wanted all kinds of grand dresses. She was full of laughter, very restless, and somewhat erotic. She was a well nourished woman, the temperature was 99° F. and the only abnormal motor sign then noted was exaggerated knee jerk on both sides.

Progress of Case. In about a month she quieted down considerably and at the urgent request of her husband, and in order that her child might be born at home she was discharged.

Readmission. On December 30th 1892 she was re-admitted.

History continued. Her child had been born during the previous August. The labour had been lingering and instrumental, the child was dead, and according to the husband, decomposed. After the labour her mind improved greatly, but she was never quite the same since the first symptoms of mental illness. In these weeks before being re-admitted she had neglected herself, was inattentive to her house, and even uncleanly in her habits. Then she got stupid and melancholic, she heard imaginary voices, refused food and became sleepless. One of the medical certificates state "She stands in the same position with a sad melancholic expression and will not answer a question nor utter a word."

State on re-admission. She was in a state of mild Melancholic Stupor. She looked dull and stupid, she required

great persuasion to reply to questions and when she did so, it was only in monosyllables, and her memory was much confused. She complained of tinnitus and pain in both ears and she was rather deaf. There was anaemia; there was a systolic bruit best heard in the mitral area; the temperature was normal; she had amenorrhoea and the knee jerks were exaggerated.

Progress of Case. For some few weeks she remained in a state of quiet stupor, and would neither do work nor answer questions; she looked ill and thin, but when the condition of anaemia began to yield to treatment and she once more became fat and sleek, she was then lively and talkative again. Indeed she returned to a condition almost similar, but milder, to that of her first admission. She complained often of her tinnitus and deafness and took an interest in its treatment.

By April 10th. 1893, though feeble minded and somewhat silly, she did not seem to have any delusions and she was in such a condition that she was not deemed a suitable case to keep in the Asylum, and therefore was taken away by her husband. Legally but not medically she had "recovered".

Another re-admission. On 10 th. November 1893 she was re-admitted again.

History continued. Her husband said that at first after

her discharge she got on well in her home, but latterly she could do nothing about the house, and could not even go a simple message without making a mistake. "She sat idle in the house, forgot to prepare her husband's or her own meals, occasionally shouted without cause, and sometimes took crying fits. She slept badly, but ate well. Her husband noticed that she had got much older looking and fatter lately, and more stupid mentally. He also noticed the changes in her expression, speech and gait but he said that even since he knew her she had a curious waddling gait; and when quite a girl she never could read aloud because she made such blunders over big words. He however noticed she was very much worse lately in these particulars. A few weeks before she was brought back to the Asylum she had a "faintish turn" when she was unconscious for a few minutes. She fell back in her chair and became pale, but there was no twitching and no loss of control of the bladder or rectum. One medical certificate says "She is often crying without any apparent cause, cannot settle down to do any work, does not sleep and continually sits in one position without doing anything."

State on admission.

It was at once noticed that there was a great change in her expression, such as to suggest General Paralysis of the Insane, and a further investigation only tended to confirm this diagnosis. She had a vacant, expressionless look, laughed in a silly pleased



way, and when asked how she felt said "fine".

She could not add together 5 and 2 and was generally stupid when questioned about simple matters. Her memory was so impaired that she could not remember the day, the month or the year. The pupils reacted feebly to light, they were irregular and the left was larger than the right: Her gait was waddling and unsteady, the knee jerks were exaggerated, the speech was slurred, the lips and tongue very tremulous and the expression generally paretic. There had been no menstruation since her last child was born, there was a faint systolic murmur heard best in the mitral area, and the second sound was reduplicated.

1st. January 1894. She is still in the Asylum and is fat and fresh looking. The motor signs of the disease are well marked and mentally she is easily pleased, facile in conversation, silly and childish in manner and cannot properly take care of herself and in fact is demented.

Just when patient begins to speak or laugh there are marked facial tremors; the tongue is very tremulous when protruded and cannot be kept still a moment; the facial expression is stolid; the speech is thick and often indistinct and many long words she cannot pronounce; the gait is waddling and she does not turn easily; her whole carriage is ungraceful; all the tendon reflexes are exaggerated, but especially those on the right side; the pupils are unequal, irregular and react sluggishly.

Patient has no idea of working. She will do a little sewing if it is put into her hands, and she requires to be watched to keep her at it or else she soon gives it up. In demeanor she is quiet, not at all restless and seems to be in a state of happy indifference. She has no power of will, is quite contented with her surroundings and says she is quite happy. Her memory is very confused, she cannot remember when she was married or when she had her last child. If one asks her how long ago certain events happened she gets out of her memory difficulty by saying "a good while ago". She does not seem to have any gross delusions. She can only carry on a conversation on very simple topics, and her answers are always uncomplicated.

Notes on the Case. This is a very unusual case first from the youth of the patient and second on account of the marked remissions. Her case has therefore been reported more fully than most of the rest.

Case XVIII.

Mrs. W . a widow, aged 40, was admitted on June 14 th. 1892.

History. She was found wandering by the police, and no proper history of her case was ever obtained. The medical certificates describe her dull, listless appearance, her vacant mindedness, her filthiness, and her disposition to expose herself in a silly way on the streets. About a year before admission to the Asylum Dr. John Thomson informs me that he delivered her of an illegitimate child (she being a widow) and that he then noticed she spoke with a thick speech and had a strange manner.

State on admission. She was greatly enfeebled in her mind, being very facile in conversation, confused in her ideas, silly and emotional. Her memory was greatly impaired. When asked how she felt, she replied "very strong", although in reality she was very weak and tremulous. Her pupils were equal, but reacted very sluggishly; her gait and indeed all her movements were very unsteady; the knee jerks were greatly exaggerated; her expression was flat; her speech much interfered with and her tongue tremulous. She was in a filthily dirty state, clad in rags and with blisters on her feet.

Progress of Case. She was a typical case of female General Paralysis. Her motor symptoms were well marked; and



there was all round enfeeblement of the mind. She had no big delusions, but like a happy child was pleased with herself, everything and everybody. The nurses however noticed how much broader her smile became when a man was about. She slept well, ate largely and but seldom was noisy. She was very wet and dirty in habits, passing everything under her where she was, she never tried to do any work, but sat still with a vacant smile on her face, waiting for the next meal.

Under the extra care and nursing she got fatter and ruddier, but as she grew fatter she got more fatuous. Latterly she got very feeble, her gait got very unsteady and weak, her speech more difficult and her swallowing became affected, so that she required most careful feeding to prevent choking. She also rapidly became more mindless, thinner in her body and in fact entered the third stage of the disease. She died on April 23rd. 1893.

#### Post-Mortem Examination.

Unfortunately none was allowed.

Note on the Case. She was a typical case of Female General Paralysis, being of the quiet nondelusional variety. She was probably far advanced in the disease before she was sent to the Asylum.

Case XIX.

Mrs. B. aged 26, was admitted July 12th. 1892.

Disposition and Habits. She had always been a passionate, self-willed woman but is said to have been very steady in habits.

History. About two years before admission her husband noticed that she was not so well mentally and her memory especially was affected. To some extent this failure of memory passed off however. Then she seemed to lose power of making necessary efforts for household duties and would sit idle for hours. She slept unusually well and neither was excited or extravagant in her behaviour. At times she was over-active and became greedy for money and went out to work although there was no necessity for her to do so. Her speech also became affected in two ways. She had difficulty in pronouncing long words and also would stop in conversation having forgotten the word she wished to use. Latterly she refused food, sat quite idle, and would neither dress or undress at proper times when requested. The medical certificates describe her vacant expression, her impaired memory and her want of attention.

State on Admission. She was in a very confused dreamy state, resisted whenever she was asked to do anything and became greatly excited when compelled to do as she was

wished. She confessed to being dull, her memory for recent events was much impaired and her attention could not be kept for long. She was a ruddy, stupid looking brunette, had a hesitating shaky speech and when she did walk it was in an ungainly slouching way. The pupils were irregular in contour and the tongue tremulous. A proper examination was difficult as she often resisted.

Progress of Case. She remained obstinate and stuporose and was subject to occasional outbursts of violence and noise, when the tremulousness of her voice was very noticeable. At other times she was silent and nothing would induce her to speak. She became very dirty and untidy in her habits and swallowed her food like a wild animal. When asked to walk she refused vigorously and became very resistive and obstinate. Her expression became more heavy and paretic and at night she was very noisy, shouting out in an incoherent way. She had no "congestive" attack, but she gradually became weaker, her speech became much impaired, she got very wet and dirty in habits and latterly was confined to bed. She died on April 17th. 1893.

Post Mortem Appearances. The post mortem examination was made by Dr. Middlemass. The brain weighed  $44\frac{3}{4}$  ozs; fluid  $1\frac{1}{2}$  ozs; pia slightly milky roughened and adherent everywhere except over base; vessels thickened; convolutions considerably atrophied especially anteriorly;



granulations in ventricles very numerous.

Notes on the Case. This is another young adult case.  
On the whole she was melancholic and resistiveness was  
the feature of her case.

Case XX.

Mrs. B. aged about 40, was admitted on November 5th. 1892.

History. She was found wandering dirty and ragged by the police and being found insane was certified and removed to the Asylum. The medical certificates describe her great loss of memory, her silly conversation and almost imbecile manner.

State on Admission. She appeared happy and contented, smiled a good deal and talked very effusively. She was restless and fidgetty and made odd movements and curious grimaces of a choreoid kind. She had a childish manner and was long in answering simple questions. Her memory was much impaired. Her gait was peculiar, being rolling and unsteady. Her feet were far apart as she walked and when asked to turn she did so in a wide sprawling manner, with her arms extended to help in equilibration. Her articulation was jerky and slurred, her tendon reflexes exaggerated and her tongue tremulous; she was evidently well advanced mentally and bodily.

Progress of Case. Within a few days her friends were discovered and she was transferred to Ayr Asylum, where she died of General Paralysis on September 3rd. 1893. Dr. Watson, Assistant Medical Officer at Ayr Asylum informs me that her speech and gait became steadily worse,

she had distinct delusions of grandeur, and during the last three months of her life she had several apoplectic form seizures.



During the year 1893 eight adult and three developmental cases were admitted.

Case XXI.

Marion S. aged 34, a millworker, was admitted on January 14th 1893.

Habits. She had lived with her husband three years and then left him to lead an immoral life. She became drunken and contracted syphilis. She seemed to have been much admired by men, and had considerable influence over them. For instance besides her husband, three men with whom she had lived called at the asylum to see her, spoke in high terms of her goodness and kindheartedness and expressed sorrow at her illness.

History. For about a year before she was sent to the asylum it was noticed she was becoming silly and childish. Her bodily and mental weakness progressed together and rapidly. At no time was she very bad to manage nor did she express gross delusions of any kind.

State on admission. She was far advanced in the disease both materially and mentally. She was restless and her attention constantly wandered away from the questioner. She could not answer questions properly or carry on any intelligent conversation. She seemed to have hallucinations of sight and to be frightened at what she saw. Speech was so greatly affected that it was with the greatest difficulty she

could articulate any word of more than one syllable.

Progress of case. She passed her urine and foeces in bed. At times she shouted out as if in pain. She slept very badly and was often noisy at night. Latterly she got utterly helpless, swallowing was difficult and speech failed her. She died on February 15th. 1893.

Post Mortem appearances. The post mortem examination was made by Dr. Middlemass. The brain weighed 41½ ounces: fluid 1 ounce; pia not milky or adherent; vessels thickened; no apparent atrophy of convolutions: granulations present, but not numerous in ventricles; microscopic examination confirmed existence of General Paralysis.

Notes on the case. This was a very rapid case. The post mortem naked eye signs were only very slight but the diagnosis was fully confirmed not only by the clinical history but by the marked microscopic signs. In such a rapid case it is evident the more gross changes had not time to take place.

#### Case XXII.

Anna Marie B. aged 50, a ladies maid of Swiss nationality, was admitted on February 21st. 1893.

Disposition and habits. For many years she had acted as a much valued ladie's maid to the same mistress, and during all these years she had led a correct and

good life. But it is a remarkable fact that after she came to the Asylum she spontaneously confided to the head nurse that she had had syphilis in her youth History. For about a week before admission she had been excited, very restless and sleepless and talking very much and irrationally. She had a constant desire to burn everything and would have set her clothes on fire if allowed. She promised fine gifts to all her friends and laughed immoderately.

State on admission She was in a state of acute hilarious mania, being very happy, very grandiose in her ideas, talking incessantly and generally incoherently and laughing a great deal. She had a very large appetite, and at once asked for food saying in her exaggerated way "I've not had food for two years!" She was very thin, anaemic and generally run-down in health; the right pupil was dilated and both reacted but slowly and imperfectly to light; the left knee jerk was exaggerated, her speech was impaired and her tongue tremulous.

Progress of case. The excitement continued extreme and a note in the case book in April 28th. states that she offered marriage to all the doctors, along with fine estates and millions of money. When asked how she was she replied "quite well" and "very happy" although in reality she was very emaciated, weak and ill. She was confined to bed, and a large bed sore



formed over the sacrum in spite of careful precautions. She could not stand alone, the speech was very slurred, the pupils were unequal and irregular. At time she had attacks of hysterical weeping. She became weaker and weaker, her features got more pinched and expressionless, her speech became very much impaired and at last on May 3rd. 1893 she died in a "congestive" attack with marked spasms affecting both sides of the face.

Post mortem appearances. The post mortem examination was performed by Dr. Middlemass. The brain weighed 31 ounces; fluid 2 ounces; pia slightly milky and considerably adherent anteriorly and over vertex; vessels thickened; convolutions considerably atrophied anteriorly; numerous fine granulations in ventricles.

Notes on the case. This case exhibited all the characteristics of a classical male General Paralytic. She was a very rapid case. The history of her having had syphilis is noteworthy especially as she had for twenty years led a perfectly good life, and was respected by both her mistress and her fellow servants.

Case XXIII.

Margaret P. aged 40 admitted February 28th. 1893 from Craiglockhart Poorhouse.

Habits. For three or four years she had cohabited with a man, and previously had led a very loose life indeed.

History. About six weeks before being brought to the Asylum she had been admitted to the Poorhouse, and I am indebted to Dr. Dickson for the only history I could get about her. When she first went to the Poorhouse it was noticed that she was somewhat vacant mentally, but she was able to answer questions in a fairly intelligent fashion. A week before coming to the Asylum it was noticed that she was in the habit of rising during the night and of running about the corridors. Then it was found out that she had incontinence of urine and this led to her being sent to the Infirmary of the Poorhouse for treatment. She became more restless and sleepless at night and the day before it was found necessary to certify her. She was acutely maniacal. She shouted incessantly, expressed some grandiose notions about her wealth and the powers of her maternity, used abominable language and threatened the nurses and her fellow patients. The medical certificates describe her restlessness, her constant incoherent talk, her tendency to tear her clothes and her delusions that she had a fortune and that she had just been confined.

State on admission. She had a restless manner, laughed when spoken to in a silly foolish way, was

only partially coherent in her statement and stated with considerable pride that she had recently given birth to several babies. Her memory was very bad and a conversation with her at once showed how confused she was in her mind. Her gait was unsteady, her pupils were irregular and did not respond to light, her speech was slurred, her tongue was tremulous: the knee jerks were absent: there was some brown discolouration of the skin over the lower part of the back and in front of both legs, and she complained of shooting pains especially down the thighs and legs.

Progress of case. She is still in the second stage of the disease with marked motor and mental enfeeblement.

On March 9th. 1894 it was noted "The right pupil is smaller than the left and is oblong in shape, the left being also irregular; she has a dreamy placid expression; the tongue is slightly tremulous, but there are no facial tremors observable; the speech is a little thick, but she can say the usual test words such as 'hippopotamus' fairly well; her gait is remarkably steady for such a case, but she has some difficulty in rising suddenly from a sitting posture; the knee jerks are absent; her habits are clean and tidy and she is anxious to be of use. She does nothing well but tries to help in making beds, and such



simple tasks. Mentally she is quite coherent in conversation: her memory is very bad; she has almost no volitional power, is morbidly contented, and lacks mental activity; she has the delusions that she is the wife of a doctor and that she has six children, none of whose names she says she remembers.

Case XXIV.

Mrs. A. a married woman, aged 29, was admitted on March 1st. 1893.

Disposition and habits. She had always been very 'nervous', easily excited and quick tempered. She had been immoral and this applied even to her life after she was married.

Previous attacks. She had had no previous attack of insanity and had been a healthy woman.

Hereditary Predisposition. Her mother had an attack of suicidal melancholia for which during 1887-88 she was treated in the asylum and afterwards in a private house.

History. About six months before she was admitted her sister-in-law noticed she was rather peculiar, especially in what she said. She talked foolish rubbish. Then she began to behave very strangely, buying expensive earrings for herself, and getting the ears of her child, who was only sixteen months old pierced for earrings. Within the last few days

before being brought to the Asylum, she became quite unmanageable and required constant attention. She became violent when any of her foolish wishes could not be attended to and went into a fit of temper on little or no provocation. Generally she slept well but for two nights she had been very restless. She constantly talked about, and made ridiculous arrangements for a visit to Paris, which she said she was about to make with a man she had previously had questionable relations with. The medical certificates describe her facile rambling, incoherent conversation, her lack of interest in her home, and the way she was bragging about going to London, Paris and New York with a gentleman.

State on admission. She was in a state of simple hilarious mania. She laughed much in a silly pleased way, made eyes at and wanted to kiss the doctors, said she had ample means, when she was really a pauper patient and kept up a constant stream of talk. It was difficult to follow the train of ideas as she jumped from one subject to another in a bewildering manner. Not only was her tongue restless but she could not sit still a minute, and she tended to be easily angered and excited when contradicted or otherwise crossed. Her expression was unusually mobile, the left pupil was greatly dilated but both reacted to light. She was not very steady in her

gait, and when walking stuck out her abdomen in a strange way. The knee jerks were absent and the temperature was 99.5° F.

Progress of case. By March 6th. it was quite evident that she laboured under General Paralysis of the Insane. The pupils were not only markedly unequal but irregular in contour and the tongue and circum-oral muscles were tremulous. The speech however all through the case was but little affected in comparison with the other motor signs. Mentally she remained in a joyous mood, with grandiose ideas and was very erotic at times.

After June first she became greatly excited, utterly incoherent in speech, constantly noisy, restless and dirty at night, and very destructive to her clothing, tearing everything into shreds. From being a pleasant looking plump woman she became thin, expressionless and animal like.

On November 30th. 1893 she succumbed to an attack of Influenza with Pneumonia.

Post mortem appearances. The post mortem examination was done by Dr. W. F. Robertson on 2nd. December 1893. The brain weighed 44 ounces; the skull cap was slightly thickened; the pia was adherent to the brain on the under surface of the frontal lobes; there was little or no atrophy of the convolutions; on section there was slight blending of the layers



of the grey matter at places; the lateral ventricles were slightly dilated; the ependyma of the lateral and fourth ventricles showed numerous fine granulations. Microscopic examination of fresh sections of the brain cortex shewed commencing spider-cell development in the first layer of grey matter, and also to a less extent in the deeper layers and in the white matter. The pia-arachnoid showed slight thickening around the vessels, and there was a commencing aggregation of round cells. The nerve cells showed pigmentary degeneration in its first stage.

Notes on the case. This was a youthful case, a rapid case, male in type and with a direct heredity to insanity which is rare.

Case XXV.

Mrs. L. a housewife, aged 30, was admitted on March 10th. 1893.

Habits. She had led a loose life and before her marriage had lived with other men.

History. She had had two dead born children and her third labour was two months before admission. It was prolonged and instrumental and the child was dead. Three weeks after the labour she had a convulsive fit and was unconscious for several hours. Six days before admission she had a series of similar fits, and since then she had been delirious, noisy and only at times conscious of her surroundings. The medical certificates describe her restlessness, her rambling incoherent conversation, and her inability to answer questions correctly.

State on admission. She was restless, walking about continually in an aimless way and not taking much interest in things around her. She was in a very confused dreamy state, and it was very difficult to make much of her as there seemed a mixture of confusion of mind, incoherence of speech and aphasia. She was a big-boned, well developed, dark skinned woman. There was right sided hemiparesis, the facial muscles and tongue were tremulous, the gait was unsteady, the speech somewhat paretic and the pupils which were equal only acted slowly and imperfectly to light.

Progress of Case. At first she was very restless and excited especially at night. She became very dirty and wet in habits and there was a difficulty in swallowing. As the disease advanced she became weaker and more demented and so became easier to manage. The motor symptoms gradually got more pronounced, so that she had difficulty in walking and in standing alone; and her mental condition became more and more enfeebled. On May 19th. 1893 she had an apoplectiform "congestive" attack, from which she did not recover, and died on May 21st. 1893.

Post Mortem Appearances. The post mortem examination was done by Dr. W. F. Robertson on May 23rd. 1893. The brain weighed 47 ounces. The skull cap was much thickened: The Dura shewed slight general thickening. The pia-arachnoid was milky. There was marked adhesion of the pia to the brain especially over the frontal lobes. There was a considerable degree of superficial atrophy of the convolutions. On section the grey matter was much congested and at places it was atrophied. There were numerous granulations over the surface of the lateral and fourth ventricles. Microscopic examination of the brain showed marked thickening of the pia-arachnoid and of the vessels of the grey and white matter. Spider cells were present throughout the sections, but they were not very numerous. The nerve cells showed very advanced pigmentary degeneration.



Notes on the Case. This is another case of a fairly quiet type, who only landed in the Asylum to be nursed for a few weeks before death.

Her case was a quick one.

Case XXVI.

Annie P.M. a charwoman, aged 33, was admitted on March 17th. 1893 from Craiglockhart Poorhouse where she had been since December 27th. 1891.

The writer is indebted to Dr. Dickson, resident medical officer of the Poorhouse for the only information obtained about her.

History. When admitted to the Poorhouse she had hemiplegia and stammered in her speech. This hemiplegia improved greatly so that three months before coming to the asylum she was walking about the hospital ward. She was very fond of reading aloud, using different words than those in the paper with utter disregard of grammar and sense, much to the amusement of her fellow patients. She could sing when asked, and used correct words at times. She had no delusions of grandeur, but was subject to fits of melancholy and slight fits of exaltation at times. For a long time before eventually confined to bed she could be made to walk only after great persuasion. On February 25th. 1893 she became somewhat excited and did not sleep for three nights thereafter in spite of hypnotics.

Then she was confined to bed and lay in a sort of dazed condition. She was regarded as a case of paralytic dementia of specific origin. The medical certificates describe her dull apathetic look, her inability to

answer questions properly and her occasional restlessness and noisiness.

State on Admission. Although so very weak, when asked how she was she replied in a quivering voice "very well". When spoken to she was found to be very childish, silly and stupid, and rolled about in an aimless restless way. She seemed to lack memory altogether and there were very few questions indeed that she could reply to at all intelligently. The pupils were very dilated, unequal and irregular, she could not stand, the speech was fast becoming lost altogether and often all the answer one could get was a confused mumble; the tongue and facial muscles were tremulous; there was left sided hemiparesis with exaggerated reflexes on that side; the feet were oedematous and there were commencing bed sores on the buttocks and both heels.

Progress of Case. From the first it was seen she was far advanced in the disease. She was often noisy and restless at night; threw off her bedclothes and took off and tried to eat any dressings applied to the bedsores. She was constantly wet and dirty, and until she became too feeble used to tear up her night dress and bed-clothes. Mentally she tended to be hilarious and happy, and sometimes made very amusing attempts to laugh and sing. The motor symptoms and the bedsores both got worse, and she gradually got weaker and died on May 23rd. 1893.



Post Mortem Examination.

The examination was made the day after death by Dr. W. F. Robertson. The skull cap was much thickened. The pia-arachnoid was milky especially in the sulci, and it was markedly adherent, in the front of the cerebrum, to the top of the convolutions. There were three small recent pial haemorrhages, one on the inner surface of the right frontal lobe and two on the cerebellum. On section the whole brain was somewhat soft. The gray matter showed patchy congestion, and was markedly atrophied, at places. The lateral and fourth ventricles showed fine granulations over their whole surfaces. The basal ganglia appeared normal. There was a small patch of hypostatic pneumonia in the right lung. The heart was very fatty and contained a large ante mortem clot in the right side. Microscopic examination of fresh sections from the motor region of the cerebral cortex showed thickening and cellular infiltration of pia-arachnoid, and marked thickening of capillaries throughout the gray and white matter, with great increase of cells in their perivascular sheaths, as well as in those of the arterioles. There was a great development of "spider" cells in the first layer especially, but also throughout the whole grey matter and the immediately subjacent white matter. The nerve cells were extremely degenerated, showing less of their processes, coarse granularity of their protoplasm and general disintegration.

In conclu

In conclusion, it may be said there appeared to be no greater morbid signs on one side of the brain than on the other, to account for the hemiparesis.

Note on the Case.

This is another quiet case, who was for long nursed in the Poorhouse before it was necessary to send her to the Asylum.

Case XXVII.

Annie N., a ladies' maid aged 45 was admitted March 20th. 1893.

Disposition and Habits.

She was usually sociable with intimate friends, but retiring in the presence of strangers. Lately she had taken to drink.

Previous Attacks.

She had had no previous attack of insanity and had been a healthy woman.

Hereditary History.

She had had 11 brothers and sisters but 8 of them had died in childhood.

History.

The duties of being ladies' maid and nurse to a lady of 83 had tried her strength greatly. About a year before admission, her sister noticed that she was not in her

usual spirits, and she seemed to take little or no interest in her home or in home news as she formerly did. She spent her money too freely and took to drink. Her memory became affected and she often talked nonsense. Three weeks before admission she had a convulsive fit, and was unconscious. After this she became very feeble, she lost control over her bladder and her speech became stuttering. The medical certificates describe her restlessness and incoherence of speech.

State on Admission. She was very confused and stupid in her mind, like a person recovering from an epileptic fit. She could only answer simple questions her speech was very rambling and disconnected, and her memory confused and quite unreliable. She moved the bed-clothes through her hands as if doing work and when asked what she was doing she said she was making a dress for her mistress. She had a pale blank expression, the pupils were unequal, irregular and reacted badly, she could not stand alone, the speech was stuttering, the tongue and facial muscles tremulous and the knee jerks absent.

Progress of Case. Within a few days she was taken away by her sister who wished to nurse her at home.

A note from her sister dated March 8th. 1894, says the patient remains at home, and is unfit to go out again and earn her livelihood but she eats and sleeps well gives no trouble and is able to help her sister with simple



things in the house. Her sister remarks on her very happy very bright manner and the patient says she has "never been better in all her life"

Note on the Case. She is evidently having a remission.

Case XXVIII.

Agnes M. a dressmaker, aged 56 years was admitted on November 4th. 1893.

Disposition and Habits. Her sister said she had always been proud and excitable. She had been alcoholic, but not for at least a year.

Previous attacks. She had had no previous attack of insanity and had been a healthy woman.

Hereditary History. Her mother and father had both died of "paralysis" when about 60; a sister had died of consumption and a brother of "paralysis of the spine."

History. The man with whom she had lived for 10 years and to whom she was not married, said he first noticed a change come over her about three years before. She made mistakes, her memory became utterly bad, she became jealous of her man without cause, she used to sing songs to herself like a child, she became careless, untidy and dirty and although she said she felt always very tired she never slept well. About six weeks before she was admitted she took to her bed on account of failing strength,

and especially because of loss of power in the legs. She was very dirty in her habits and on account of neglect her house was in a miserable state of dirt and disorder. Some neighbours children looked after her when her husband was at work, and one night when he came home he noticed both her arms were powerless. A doctor was called in, and it was discovered that both arms were fractured. She had been restless and had probably sustained the injuries by falling out of bed. After the fractures had become united at the Infirmary she was sent to the Asylum on account of her increasing restlessness and mental deterioration. The medical certificates state that she laughs and cries without cause; that she thinks the Infirmary is her home, and that she talks away in a rambling incoherent way.

Sexual History. She had lived with a man for ten years, but had never had any children. The man owned to having had syphilis in his youth, but denied that she had led a loose life before he lived with her. She had always, he said, had inordinate sexual desire.

State on admission. She was very garrulous talking a great deal of nonsense, and jumping from subject to subject in a very perplexing manner to a listener. Her memory was utterly bad. She asserted she had been starved for days, and when given food to eat, immediately it was swallowed she made the same assertion in perfect good faith, having forgotten entirely that she had just eaten. She told a most pitiable account of the abuse and ill-treatment which her "husband" had subjected her to on the

previous day, although in reality she had been in the Infirmary several days. She was very emotional, whining and crying without cause. Physically she had an expressionless, somewhat dissipated look. She spoke with a peculiar "burr" as if she had something in her mouth and she came to grief when she tried to pronounce "hippopotamus" or "West Register Street". Her pupils were equal and fairly regular, but hardly reacted to light at all. Muscularly she was very weak and was not able to stand alone. She complained a great deal of pain, especially when the calves were pressed deeply, but we could not be sure that this was neuritis, because she complained of pretty much everything. The tongue was very tremulous and coated with a white fur. Her appetite was enormous though she asserted she was being starved. Both arms were in splints on account of the fractures, and both knees and the right shoulder joint shewed chronic (probably rheumatic) synovitis. The temperature was 99° F.

Progress of the case. On December 21st she had quieted down a little and had gathered strength under treatment, so that she was able to sit or rather lie back in an easy chair. The motor symptoms remained much the same and the fractures did well. Mentally she was as full of complaints as ever. She insisted that she was being starved, in fact that we had given her nothing to eat for a month, that the nurses abused and struck her causing all the pain she had, and so on.

On December 23rd. 1893 she had a smart attack of



diarrhoea and this in her very weak state, carried her off. The Post Mortem Examination was done by Dr. W.F. Robertson on December 24th 1893. The brain weighed 46 ounces. The pia-arachnoid was slightly milky especially anteriorly. No adhesion of pia to brain substance. The hemispheres however were adherent by thickened pia. There was some atrophy of the convolutions. On section the grey matter showed no marked, naked-eye change. There were no granulations in the lateral or fourth ventricles. The basal ganglia appeared normal. Microscopic examination showed the typical appearances of advanced general paralysis. The pia was much thickened and infiltrated with small cells, there was a dense spider-cell development throughout the whole of the grey matter, and subjacent white matter. The capillaries showed very marked irregular thickening, granularity and proliferation of endothelial cells. The nerve cells showed advanced pigmentary degeneration.

Notes on the case. The mental condition was anything but that of a general paralytic. The pathology too was noteworthy, for although many of the naked eye appearances were absent the microscopic examination was typical of General Paralysis.

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